

IN THE CLAIMS

Please amend the claims as shown below.

1. (Currently Amended) A method of accessing one of a plurality of logical volumes stored on at least one of a plurality of storage [elements] systems in an enterprise, the method comprising steps of:

A2 specifying an enterprise logical volume identifier (ELVID) ~~ELVID~~ for the one of the plurality of ~~the~~ logical volumes that uniquely identifies the one of the plurality of logical volumes among the plurality of logical volumes, so that the ELVID can be used to access the one of the plurality of logical volumes on at least two of the plurality of storage systems;

specifying a physical storage address for the one of the plurality of logical volumes; and verifying that the ELVID corresponds to the physical storage address.

2. (Original) The method of claim 1, further comprising a step of maintaining an ELVID database that includes ELVIDs and a corresponding physical storage location.

3. (Original) The method of claim 1, wherein the step of specifying an ELVID and the step of specifying a physical storage address are performed by a host computer accessing the logical volume.

4. (Currently Amended) The method of claim 3, wherein the step of verifying is performed by one of the storage [elements] systems.

5. (Currently Amended) The method of claim 4, further comprising a step of maintaining an ELVID database at each storage [element] system, the respective ELVID database including ELVIDs stored at the respective storage [element] system and a corresponding physical storage location.

6. (Original) The method of claim 1, wherein the step of verifying is performed by a storage management controller.

7. (Currently Amended) The method of claim 1, wherein the step of verifying is performed by one of the storage [elements] systems.

8. (Currently Amended) The method of claim 1, wherein the one of the plurality of logical volumes is a conventional logical volume.

9. (Currently Amended) The method of claim 1, wherein the one of the plurality of logical volumes is a component of a conventional logical volume.

10. (Currently Amended) The method of claim 1, wherein the one of the plurality of logical volumes is a hyper-volume.

11. (Currently Amended) The method of claim 1, wherein the one of the plurality of logical volumes is a striped volume.

12. (Currently Amended) The method of claim 1, wherein the one of the plurality of logical volumes is a partition.

13. (Currently Amended) The method of claim 1, further comprising a step of assuring that the entity accessing the one of the plurality of logical volumes is authorized to do so.

14. (Currently Amended) The method of claim 13, further comprising a step of maintaining an ELVID database at each storage [element] system, the respective ELVID database including ELVIDs and entities permitted to access the one of the plurality of logical volumes corresponding to the respective ELVID.

15. (Currently Amended) A method of accessing one of a plurality of logical volumes stored on at least one of a plurality of storage [elements] systems in an enterprise, the method comprising steps of:

specifying an enterprise logical volume identifier (ELVID) ~~ELVID~~ for the one of the plurality of logical volumes;

specifying a physical storage address for the logical volume; and

using the ELVID to assure that an entity requesting access to the one of the plurality of logical volumes is authorized to do so, the ELVID uniquely identifying the one of the plurality of logical volumes among the plurality of logical volumes and being usable to access the one of the plurality of logical volumes on at least two of the plurality of storage systems.

Ad 16. (Original) The method of claim 15, wherein the step of specifying an ELVID and the step of specifying a physical storage address are performed by a host computer accessing the logical volume.

17. (Currently Amended) The method of claim 16, wherein the step of using is performed by one of the storage [elements] systems.

18. (Original) The method of claim 16, wherein the step of using comprises a step of accessing an ELVID database.

19. (Original) The method of claim 15, wherein the step of using is performed by a storage management controller.

20. (Currently Amended) The method of claim 15, wherein the step of using is performed by one of the storage [elements] systems.

21. (Currently Amended) The method of claim 20, further comprising a step of maintaining an ELVID database at each storage [element] system, the respective ELVID

database including ELVIDs and entities permitted to access the one of the plurality of logical volumes corresponding to the respective ELVID.

22. (Currently Amended) The method of claim 15, wherein the step of using comprises a step of accessing an ELVID database, the ELVID database including ELVIDs and entities permitted to access the one of the plurality of logical volumes corresponding to the respective ELVID.

23. (Original) The method of claim 15, wherein the entities are user accounts.

24. (Original) The method of claim 15, wherein the entities are host computers.

25. (Original) The method of claim 15, wherein the entities are applications running on host computers.

26. (Currently Amended) A host computer, comprising:
a processing unit; and
an enterprise logical volume identifier (ELVID) ELVID interface module to transmit an access request[s] for at least one of a plurality of logical volumes, the access request[s] including an ELVID for the at least one of the plurality of logical volumes and a respective physical storage location on one of a plurality of storage systems, the ELVID uniquely identifying the one of the plurality of logical volumes among the plurality of logical volumes and being usable to access the one of the plurality of logical volumes on at least two of the plurality of storage systems.

27. (Currently Amended) A storage [device] system for use in an enterprise comprising a plurality of storage systems coupled by a network, the plurality of storage systems to store a plurality of logical volumes, the storage system comprising:

a storage medium to store data corresponding to the plurality of logical volumes; and

an enterprise logical volume identifier (ELVID) ~~ELVID~~ verifier module to verify that an access request to a physical storage location on the storage medium is directed to ~~the~~ a correct one of the plurality of logical volumes as identified by an ELVID, the ELVID uniquely identifying the correct one of the plurality of logical volumes among the plurality of logical volumes and being usable to access the correct one of the plurality of logical volumes on at least two of the plurality of storage systems.

28. (Currently Amended) The storage [device] system of claim 29, further comprising an ELVID database including ELVIDs for the plurality of logical volumes stored on the storage [device] system and a corresponding physical storage location.

29. (Currently Amended) A storage [device] system for use in an enterprise comprising a plurality of storage systems coupled by a network, the plurality of storage systems to store a plurality of logical volumes, the storage system comprising:

a storage medium to store data corresponding to the plurality of logical volumes; and
an enterprise logical volume identifier (ELVID) ~~ELVID~~ authorization module to verify that an access request to a physical storage location on the storage medium is received from an entity permitted to access one of the plurality of logical volumes with a corresponding ELVID, the ELVID uniquely identifying the one of the plurality of logical volumes among the plurality of logical volumes and being usable to access the one of the plurality of logical volumes on at least two of the plurality of storage systems.

30. (Currently Amended) The storage [device] system of claim 29, further comprising a storage medium [to] [hold] holding an ELVID database, the ELVID database including ELVIDs and entities permitted to access the one of the plurality of logical volumes corresponding to the respective ELVID.

31. (Currently Amended) A computer system comprising:
at least one host computer;

a plurality of storage [elements] systems that store a plurality of logical volumes; and
means for associating enterprise logical volume identifiers (ELVIDs) ~~ELVIDs~~ with
requests for access to the plurality of logical volumes; and

means for verifying that access requests to physical storage locations are made to an ~~the~~
appropriate one of the plurality of logical volumes identified by a respective ELVID, the
ELVID uniquely identifying the appropriate one of the plurality of logical volumes among the
plurality of logical volumes and being usable to access the appropriate one of the plurality of
logical volumes on at least two of the plurality of storage systems.

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32. (Currently Amended) A computer system comprising:

at least one host computer;

a plurality of storage [elements] systems that store a plurality of logical volumes; and

means for verifying that access requests to the plurality of logical volumes [having]
using an associated enterprise logical volume identifier (ELVID) ~~ELVID~~ are made by an entity
authorized to access ~~the~~ a requested one of the plurality of logical volumes, the ELVID
uniquely identifying the requested one of the plurality of logical volumes among the plurality
of logical volumes and being usable to access the requested one of the plurality of logical
volumes on at least two of the plurality of storage systems.
